

Amendment and Response [Under 37 C.F.R. §1.116 - Expedited Examining Procedure]

Page 7 of 10

Serial No.: 10/728,439

Confirmation No.: 9418

Filed: 5 December 2003

For: POLYMER COMPOSITIONS WITH BIOACTIVE AGENT, MEDICAL ARTICLES, AND METHODS**Remarks**

The Office Action mailed February 23, 2009 has been received and reviewed.

Claims 94, 95, and 98 having been amended, the pending claims are claims 94-117.

Reconsideration and withdrawal of the rejections are respectfully requested.

Claim Objections

The Examiner objected to claims 95 and 98. These claims have been amended to address the Examiner's concerns, thereby rendering this objection moot.

The 35 U.S.C. §112, First Paragraph, Rejection

The Examiner rejected claims 94-117 under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Examiner objected to the language "hydrophobic liquid phase" in claim 94 as a component of a mixture with a hydrophobic thermoplastic elastomeric polymer alleging that there is no support other than for a mixture of two hydrophobic polymers. Similarly, the Examiner objected to the language "mixture comprising mineral oil and a hydrophobic thermoplastic elastomeric polymer." This is respectfully traversed.

Page 10, lines 4-12 of Applicants' specification refers to a dispersion of a continuous hydrophobic liquid phase (e.g., mineral oil) and hydrophilic polymer particles dispersed within the hydrophobic liquid phase. Examples are provided, including SALCARE SC91 emulsion, which is further described at page 9, lines 11-15 and page 24, lines 19-22, and SALCARE SC95 emulsion, which is further described at page 24, lines 23-26. Page 13, line through page 15, line 7 describes secondary polymers, including hydrophobic polymers (e.g., page 13, lines 8-10 of Applicants' specification), which can form a continuous phase (e.g., page 13, line 21 of Applicants' specification), and include, for example, thermoplastic elastomeric polymers including various KRATON polymers (e.g., page 14, line 21 through page 15, line 7 of

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Page 8 of 10

Serial No.: 10/728,439

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Applicants' specification). A pre-compounded blend of a KRATON polymer and mineral oil is described at page 24, lines 8-11 and used in the Examples. The Examples include compositions that include mixtures of KRATON polymers (examples of hydrophobic thermoplastic elastomeric polymers) and mineral oil (a hydrophobic liquid phase), which form a continuous hydrophobic phase, with absorbent hydrophilic microparticles (provided by the SALCARE emulsions) dispersed therein.

Also, at page 19, lines 17-20 of Applicants' specification, Applicants disclose "blending an elastomer with an oily plasticizer and antioxidants, and . . . adding a hydrocolloid either as a finely divided powder or as a dispersion." This is then embodied by Examples 1-3 (starting at page 27, line 26) where the following steps are described: (a) preparing a gel, (b) preparing silver-modified particles, and (c) combining the gel and the silver-modified particles in an extruder. International Publication No. WO 97/00163 (cited at page 28, lines 7-8, which is incorporated by reference at page 35, lines 7-9) also teaches a process that combines hydrophobic mineral oil with hydrophobic elastomers (e.g., SEBS and SIS) to make soluble mixtures in the extruder.

Applicants submit that this is more than sufficient information to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Withdrawal of this rejection is respectfully traversed.

The 35 U.S.C. §103 Rejection

The Examiner rejected claims 94, 95, 101-109, 111, 112, 114, and 115 under 35 U.S.C. §103 as being unpatentable over Cilento (EP 0 512 855). The Examiner rejected claims 96-100 under 35 U.S.C. §103 as being unpatentable over Cilento (EP 0 512 855) in view of Takemori et al. (U.S. Patent No. 5,075,373). The Examiner rejected claims 110, 113, 116, and 117 under 35 U.S.C. §103 as being unpatentable over Cilento (EP 0 512 855) in view of Asmus (U.S. Patent No. 5,270,358). These rejections are respectfully traversed.

There is no teaching or suggestion in any of the cited art, used in any combination, of a polymer composition comprising: a continuous hydrophobic phase comprising

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Page 9 of 10

Serial No.: 10/728,439

Confirmation No.: 9418

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For: POLYMER COMPOSITIONS WITH BIOACTIVE AGENT, MEDICAL ARTICLES, AND METHODS

a mixture comprising: a hydrophobic liquid (e.g., mineral oil); and a hydrophobic thermoplastic elastomeric polymer (e.g., a styrene-isoprene-styrene block copolymer); absorbent hydrophilic microparticles dispersed within the hydrophobic liquid, wherein the hydrophilic microparticles comprise a crosslinked carboxylic acid-containing organic polymer (e.g., a copolymer of sodium acrylate and acrylic acid); and a bioactive agent having a particle size less than one micron dispersed in the hydrophilic microparticles, wherein the bioactive agent is selected from the group consisting of a metal oxide of silver, a metal oxide of copper, a metal oxide of zinc, and combinations thereof; wherein the polymer composition is nonadherent (i.e., display a 180° peel strength of less than 1 N/cm) and contains less than 1 wt% water based on the total weight of the composition.

Cilento teaches zinc oxide, but there is no teaching or suggestion that the zinc oxide, or any other bioactive agent, is dispersed in hydrophilic microparticles. Furthermore, there is no teaching or suggestion of how to get zinc oxide, or any other bioactive agent, dispersed in hydrophilic microparticles. Applicants are not simply claiming a mixture of components (hydrophilic liquid phase, hydrophobic thermoplastic elastomeric polymer, hydrophilic microparticles, and bioactive agent), which is a more appropriate characterization of the Cilento composition.

Takemori et al. do not teach any bioactive agents, or how to get a bioactive agent, dispersed in hydrophilic microparticles. Thus, Takemori et al. do not provide that which is missing from Cilento.

Asmus is directed to a gel of swollen hydrocolloid dispersed in a pressure sensitive adhesive matrix. Although Asmus teaches the use of silver oxide, for example, as an antimicrobial agent in the gel, Asmus fails to teach or suggest a bioactive agent dispersed in hydrophilic microparticles that are themselves dispersed in a non-adherent hydrophobic liquid (e.g., mineral oil). Furthermore, there is no teaching or suggestion of how to get silver oxide, or any other bioactive agent, dispersed in hydrophilic microparticles that are themselves dispersed in a non-adherent hydrophobic liquid (e.g., mineral oil). Thus, Asmus does not provide that which is missing from Cilento.

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Page 10 of 10

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Accordingly, acknowledgement of the patentability of the present claims is respectfully requested.

Summary

It is respectfully submitted that the pending claims 94-117 are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives at the telephone number listed below if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted
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Date

May 5, 2009

By Ann M. Mueting
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CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that this paper is being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 5th day of May, 2009, at 12:55pm (Central Time).

By:

Sarah Wigant
Name: Sarah Wigant